

Figure 1

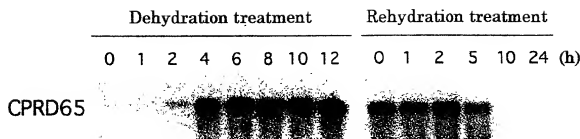


Figure 2

CPRD65	PSSASNTWFNATLPSPPKDLPSTSSPTNLLPLRIKTSNTITCSLQHLHPKQYQPTSTSTSTATTITPTIKTITITITITPRETP	90
VP14	NGLAPPTSVSIHRHLPA--RSRARAGSVRFSP--RAVSVPPAEK-LQA--PFHK-----PVADLPAPSRKPAAT--AVPGHAAKRAEG	79
LeNCED1	MTTTSN---ATNTWIKT-KLSNPSSKEFGFAS-NSTSLKNQHN-RDELINIS---SLQAPPILHFPKQSSNYQTPKNNTISHKQEN-	80
CPRD65	LSDTNQPLPKQNFLOKAWALDUNETALSHEDKSHPKADPNQIDENFAPYHEHAADQLPVVQPKKICIGEVYINGANPLYEP	180
VP14	--GKKQLNLFOR--AAAALDAFEEGFANVLL--ERPHKESTADPWOIDENFAPVZERPPVHELPLVSRKIPPFIDGVYINGANPCFDP	164
LeNCED1	NNSSSSSTSKMNLVQAAHALDAESALTKHELEPLKATADPNQIDENFAPVKNPVQCSLPVETKPKCVQEVYINGANPLYEP	169
CPRD65	VAGHFFDGGGNHALLRINKGAEVYACRFETNHLRDERATIGRPVPPMAIGELHGHSGIARLLFYARGLGLVDSENGEVANAGLVY	269
VP14	VAGHFFDGGGNHALLRINKGAEVYACRFETNHLRDERATIGRPVPPMAIGELHGHSGIARLLFYARAGGLVDSENGEVANAGLVY	254
LeNCED1	VAGHFFDGGGNHALLRINKGAEVYACRFETNHLRDERATIGRPVPPMAIGELHGHSGIARLLFYARGLGLVDSENGEVANAGLVY	258
CPRD65	ENHLLANSEDDLPYHVIITPNQDILHVDDEGLNSTLAHPKLDPADEGLALSVDVILPYLKYTFPPQCKSDVEIPKEPT	359
VP14	ENHLLANSEDDLPYHVIITPNQDILHVDDEGLNSTLAHPKLDPADEGLALSVDVILPYLKYTFPPQCKSDVEIPKEPT	344
LeNCED1	ENHLLANSEDDLPYHVIITPNQDILHVDDEGLNSTLAHPKLDPADEGLALSVDVILPYLKYTFPPQCKSDVEIPKEPT	348
CPRD65	MDHFAITENFVYVPOQVVKLYENLIGSPVYVQVDSRGFGLDQVGNANMVDPAQPCFHLINNAMEPEITENAVIGSCNTP	449
VP14	MDHFAITENFVYVPOQVVKLYENLIGSPVYVQVDSRGFGLDQVGNANMVDPAQPCFHLINNAMEPEITENAVIGSCNTP	434
LeNCED1	MDHFAITENFVYVPOQVVKLYENLIGSPVYVQVDSRGFGLDQVGNANMVDPAQPCFHLINNAMEPEITENAVIGSCNTP	438
CPRD65	ADSIENEDELISVLETRILNLRTGSTRPIISDAEQ-VILEGNVNNLGRQTKYALAEPPKSGFAKIDLSGEMKHYTG	538
VP14	ADSIENEDELISVLETRILNLRTGSTRPIISDAEQ-VILEGNVNNLGRQTKYALAEPPKSGFAKIDLSGEMKHYTG	523
LeNCED1	ADSIENEDELISVLETRILNLRTGSTRPIISDAEQ-VILEGNVNNLGRQTKYALAEPPKSGFAKIDLSGEMKHYTG	528
CPRD65	EEKFGEPFIP-----NQKEDDGYLNFVHDEENKSELQVNNLNKLEASINLPSRVYFPHGTFTHSKQENK	612
VP14	EGRFGEPFIPMDPAAPRDEDDGYLNFVHDEAGTSELLVNNADITLNAVQLPSRVYFPHGTFTHGGEADA	604
LeNCED1	DNKYGEPFIPDP-----NSKEEDDGYLNFVHDEENKSELQVNNLNKLEASINLPSRVYFPHGTFTHANDNAN	605

Figure 3

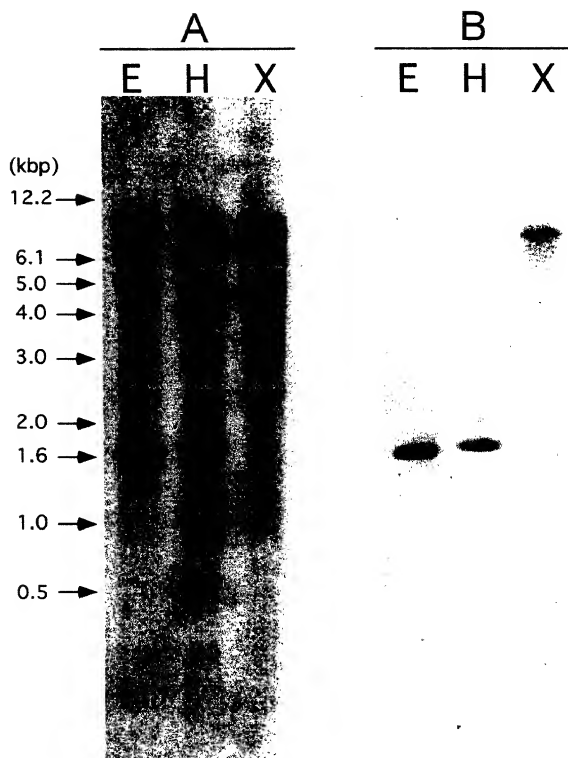
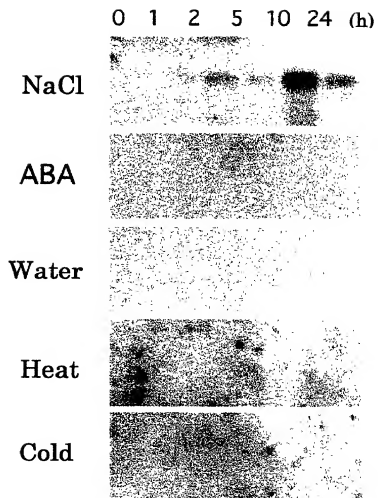


Figure 4

(A)



(B)

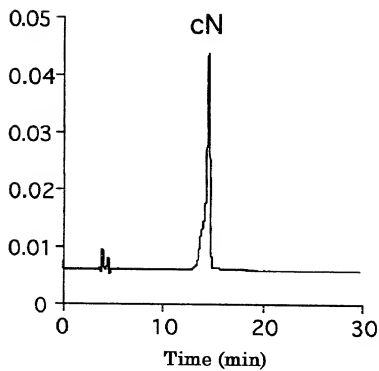
Treating time	0			10			(h)
	R	S	L	R	S	L	
Tissue							



Figure 5

4/15

(A)



(B)

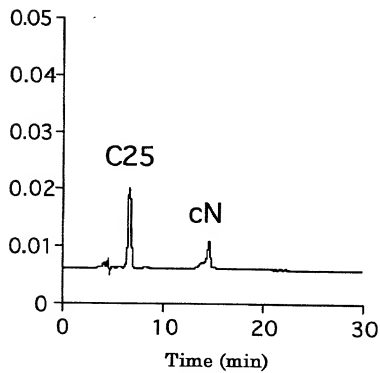


Figure 6

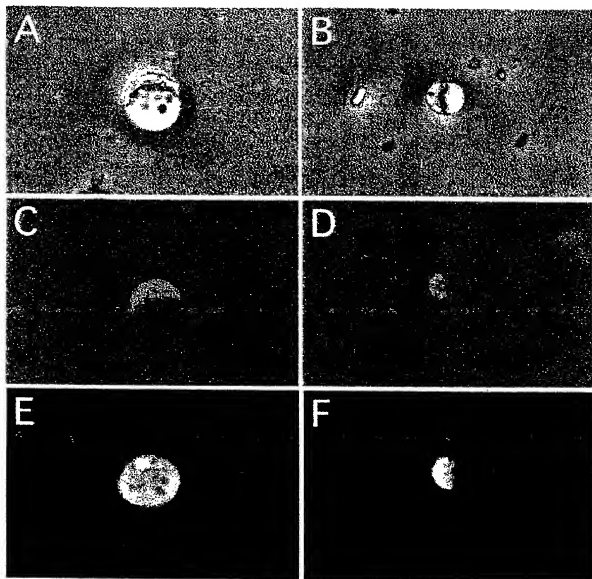


Figure 7

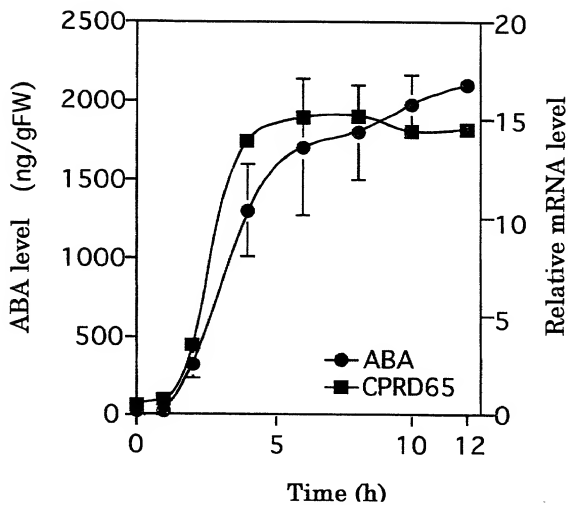


Figure 8

7/15

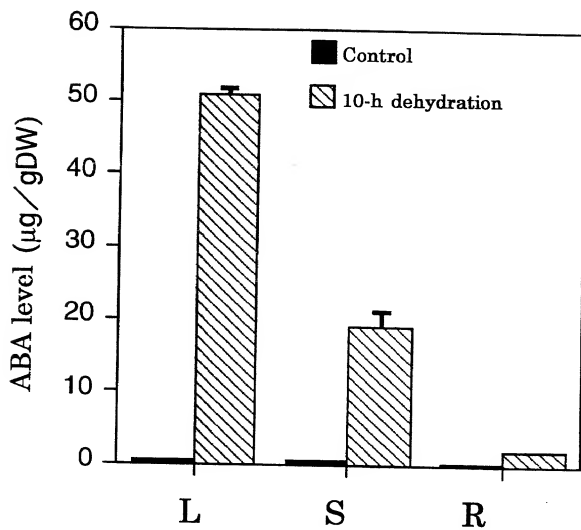


Figure 9

AtNCE3 CPRD65	MS-----FIATAAVSG-RNLGNHTQ---PLSSSSDLSYCS--SL-PMASRVTRKLVSSALHTPPALH MSSASNTWFIATLPSPPFKQLPSTSSPTNLPLRKTSSNTIICSQTLHFPKQYQRTSTSTSTATTITPTPIK	61 75
AtNCE3 CPRD65	FPKQSSNPPIVWPF--KAKESNTKQNNLFDMAAAHALDMAEFLVSHEKLHPKLTADPRVQIAGNFAPVNEPP TTTTTTTTTPPRETNPLSDTNQPLPQKNNFLQMAAAHALDLVETALYSHERKHPKLTADPRVQIAGNFAPVNEHA	134 150
AtNCE3 CPRD65	VRRNLPVWGRPDSTIGVYYRNGANPLHEPVNGHHFFDGDGMVHAWKFEHASYACRFTITNRFVQERQLGRPV ADQGLPVWGRPKTIIGVYYRNGANPLHEPVNGHHFFDGDGMVHAWKFTNGASYACRFTITQRLSQEKLGRPV	209 225
AtNCE3 CPRD65	FPKATGELHGHGGLARLLFYARAAAGVDPAGHGVANAGLVYFNGLLAMSEDDLPLYVITPNGDLITVGRF FPKATGELHGHGGLARLLFYARGLGLVDGSGHGVANAGLVYFNGLLAMSEDDLPLYVITPNGDLITVGRY	284 300
AtNCE3 CPRD65	DFHGLSTMTIAHPKDPESGHALSYDVVSKPYLKYFRFSPDGKSPDVEITLKPPTMMHDAITENFVWPD DFHGLSTMTIAHPKDPVDGDLHALSYDVVSKPYLKYFRFSPDGKSPDVEITLKPPTMMHDAITENFVWPD	359 375
AtNCE3 CPRD65	QQVFKLHEMIGGSPVYYDKNKVRFGLLKVAEDSNINWIDAPDCFCFHLNNAWEEPETHEVWIGSCMTTP QQVFKLHEMIGGSPVYYDKNKVRFGLLKVAADANAMWIDAPDCFCFHLNNAWEEPETHEVWIGSCMTTP	434 450
AtNCE3 CPRD65	DSIFNESEHLKSVLSEIRLNLHTGSTRRPIISNEQIVNLEAGWNRNHLGRKTFAYLALAEPPWKVSGFAK DSIFNESEHLKSVLSEIRLNLHTGSTRRPIISDARQIVNLEAGWNRNHLGRKTFAYLALAEPPWKVSGFAK	509 524
AtNCE3 CPRD65	VDLTIGEKKHLHYGDNRYGGEPLFLPDEGDEEHGYILLFVHDEKMKSELOIVNAISLEAVAKLPSRVYPGF VDLTIGEKKMYGEEKHGEPLFLPNGMEDDEHYILLFVHDEKMKSELOIVNANLLEASIKLPSRVYPGF	584 598
AtNCE3 CPRD65	HGTFTIADDLKKQV HGTFTISHDLKKQV-	599 612

Figure 10

AtNCED1	MSL--LTPMPS--GGIKWMP--AQ-IDLGF-RPTKGPV-----IKTQVQIVTELTKGRLFTPRITAT	60
AtNCED2	MSVSSSSFLS-----STFSLHSS-----LDRSSSSPTLRLRSVAV-----EERSPTINSNNRKNPKITLHRT	64
AtNCED3	MASFTATAVSGRMGGHTQPPSSSSQSSLYSCSLPMASVTRKLVSSALHTHPALHFPKSSNSPAIVFK	75
AtNCED4	-----KG-----SSKLLLELLVWKLMDASLPHY-----LTSSVPPS-----	75
AtNCED5	MSLSRLDLPITKTSRSHLLPQPMANISRRLLDFPKGIPDLTSLVPSVPKLRPTTPNLLMLQKLAATMD	19
AtNCED1	P--PQHPLRLNIFQAAAIATAAERALTSHEQDPLPKTADPRVOTAGNSVPVPESSVRRNL--TVGQIDPCI	132
AtNCED2	NHLYSSPPKLRPMTLATALFTTVEDINTFTDPPSRP--SVDPKHM--SONFAPVDELPTDCEIDHGTPLSL	138
AtNCED3	PKVSSSTKQMLPQAAAAALDAEGFLVSHKLLHLPKTADPSVQIAGFAPVNEQVRRNL--PWKGLPQSL	149
AtNCED4	-----KG-----SSKLLLELLVWKLMDASLPHY-----LSGNFAPDQDETAPVADLHQLPECL	75
AtNCED5	KIESSIVTMEQRLPQPTDPAQLSGNFAPNECQVNG-----LEVMDPECL	127
AtNCED1	GGVYRGGHFFPEPTAGHLFDGGGMHMKIT--NGSAYACRFTNTRLVCEKLRGPVFKATIGELHGS-G	205
AtNCED2	NGVYRGGHFFLRGPHLFDGGGMHMKIT--NGKATLCRNVITYYINMEKOTGAPVPMFVSGNGITAS	212
AtNCED3	GGVYRGGHFFPEPTAGHLFDGGGMHMKIT--NGSAYACRFTNTRLVCEKLRGPVFKATIGELHGT-G	222
AtNCED4	NGVYRGGHFFLRGPHLFDGGGMHMKIT--NGKATLCRNVITYYINMEKOTGAPVPMFVSGNGITAS	147
AtNCED5	GGVYRGGHFFPEPTAGHLFDGGGMHMKIT--NGSAYACRFTNTRLVCEKLRGPVFKATIGELHGS-G	201
AtNCED1	JARLMFYARGLCOLTNQVGGVANGVYFNNLLAKEDDPLQKLTOTGGQTVGRYDFGLQSKAMIAH	280
AtNCED2	VARGLTARSLTCOTYRGLAFPSHRLAKEDDPLQKLTOTGGQTVGRYDFGLQSKAMIAH	287
AtNCED3	JARLMFYARAAAGLQPAKGGVANGVYFNNLLAKEDDPLQKLTOTGGQTVGRYDFGLQSKAMIAH	297
AtNCED4	LJANVQQLRLKLDNTYNGGANTALVYHGLLAKEDDPLQKLTOTGGQTVGRYDFGLQSKAMIAH	222
AtNCED5	LARLAETARAGLVDGTRGGVANGVYFNNLLAKEDDPLQKLTOTGGQTVGRYDFGLQSKAMIAH	276
AtNCED1	PKLDVTKLHLSLVYVWQVFAHTRFSPGASPLEITPLETFMIDFALTENFWVFDQGMVRLGEM--	352
AtNCED2	PKDPTTGETTFARFVSV--FTLLVYRFDSAGKQDMDT--GMTSPFLHDFATTGPAFAEALQGMNMLDL	361
AtNCED3	PKDPTFESGELFASLVYVWQVFAHTRFSPGASPLEITPLETFMIDFALTENFWVFDQGMVRLGEM--	369
AtNCED4	PKDPTTGBVFTFYSL--HTFPLVYRVISQDGMDFVPLTISEPMDHFAITETVAIFQMLFRPKEM--	293
AtNCED5	PKDPTTQGLHTLSYMLKQELHLYKFTGCKTRDVEHTLPLETFMIDFALTENFWVFDQGMVRLGEM--	348
AtNCED1	TSQSPV-VVDGGRSLGMDPKATEASQTLVNSPETFCFLNNWVSPETEE--IV---VIGSQMSPADST	420
AtNCED2	VLEGSPGVDTNCKTRGLVTPKAGDESMHFEVGFPIHNNWDEDSNS--W---LIAPNMSIETH	430
AtNCED3	JRGQSPV-VYDKVQVARGELDYAEDSSNDMDADPCFCHLNNWVEETDE--W---VIGSQMTPDST	437
AtNCED4	VKEQMTSFDPKARHGLVPRYAKDELMDHFLNCFIHNWVEEEDD--WLLTQLENFQDMVSK	365
AtNCED5	JRGQSPV-IYVKEHMSGLSKQDLSGDDVMDADPCFCHLNNWVEETEGGVIV--VIGSQMSPDIT	419
AtNCED1	FNRDLSRSLVSEIRNLNTRKTRRSLV--NEDNLEIGM--NRRLGRKTRFAFLAAYPFRKVSFGAKD	492
AtNCED2	LERMVLHAKVKRKLDTGLVRRPFTSA-----RNLDFAVI--NPFLGRISRYVAAIGAPFKISGVAKD	498
AtNCED3	FNRDLSRSLVSEIRNLNTRKTRRSLV--NEDNLEIGM--NRRLGRKTRFAFLAAYPFRKVSFGAKD	511
AtNCED4	FNRDLSRSLVSEIRNLNTRKTRRSLV--NEDNLEIGM--NRRLGRKTRFAFLAAYPFRKVSFGAKD	440
AtNCED5	FNRDLSRSLVSEIRNLNTRKTRRSLV--NEDNLEIGM--NRRLGRKTRFAFLAAYPFRKVSFGAKD	489
AtNCED1	LCTGMSQYTYGGEKYG-G--EPFFLPQN--SQNGEENEDGGYFQVMDCTKSELQTNVNNKLE--ATIK	560
AtNCED2	LCTGMSQYTYGGEKYG-G--EPFFLPQN--SQNGEENEDGGYFQVMDCTKSELQTNVNNKLE--ATIK	573
AtNCED3	LCTGMSQYTYGGEKYG-G--EPFFLPQN--SQNGEENEDGGYFQVMDCTKSELQTNVNNKLE--ATIK	575
AtNCED4	TGGMLVGNLQIKYLYGL--EGRYGSEATVYRETAEDDQV--GYMGMVDEKDESEFWVWDIDKQV--AAVR	513
AtNCED5	IQNGVYSEFVYSGRFG-G--EPCVPEG--EGEEK--GYMGMVDEKDESEFWVWDIDKQV--AAVR	553
AtNCED1	LPRVYVGRHLPFASNEVDL--	583
AtNCED2	LPRVYVGRHLPFASNEVDL--	595
AtNCED3	LPRVYVGRHLPFASNEVDL--	599
AtNCED4	LPRVYVGRHLPFASNEVDL--	538
AtNCED5	LPRVYVGRHLPFASNEVDL--	577

Figure 11

10/15

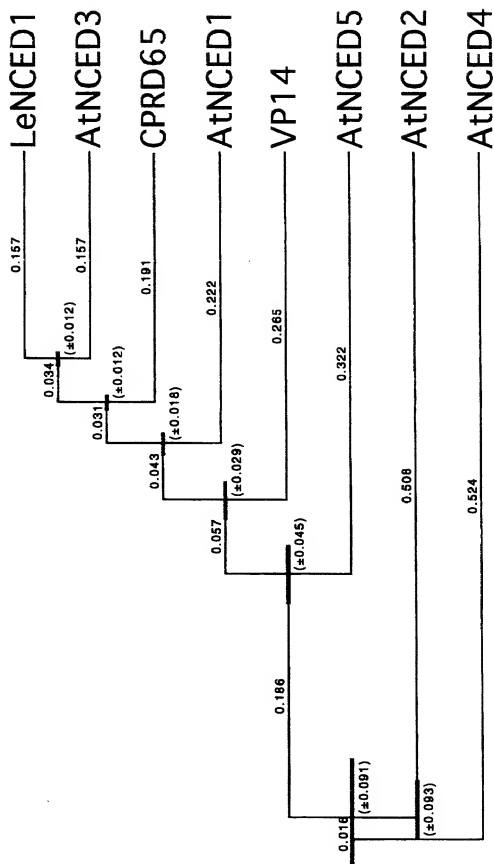


Figure 12

11/15

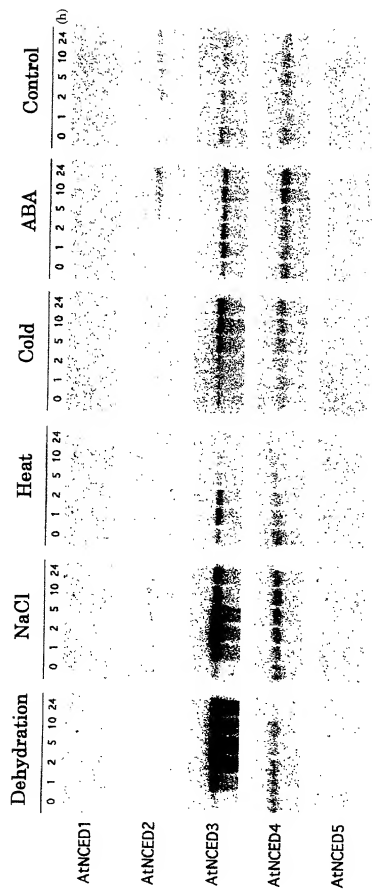


Figure 13

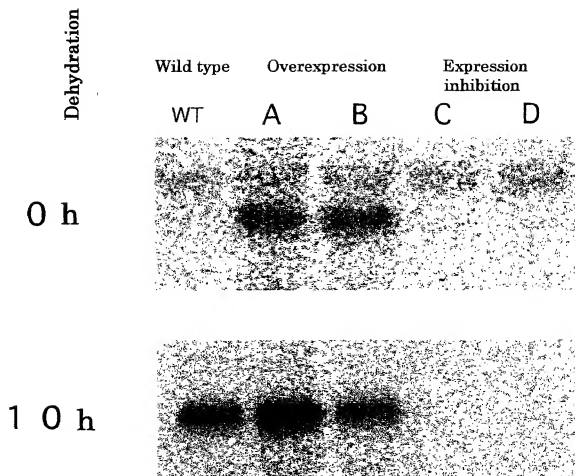


Figure 14

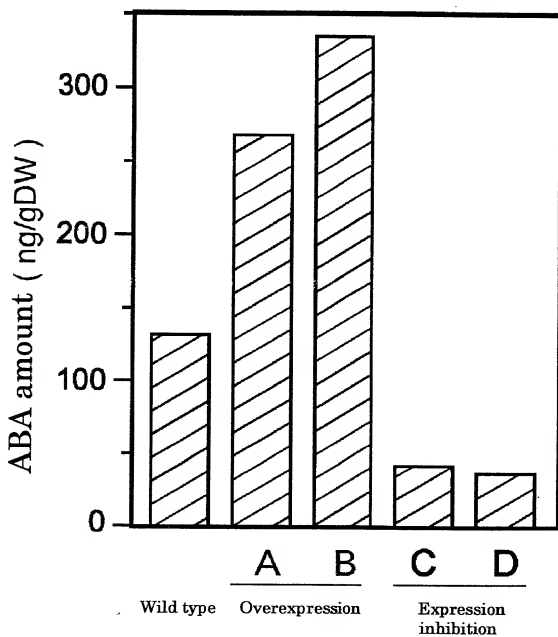
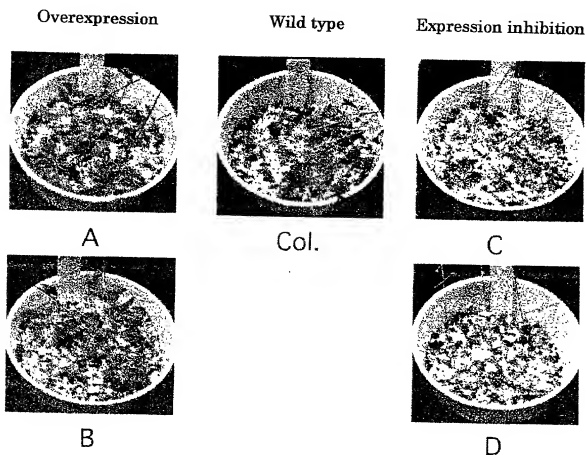


Figure 15

14/15



Water content of plants
14 days after tolerance evaluation

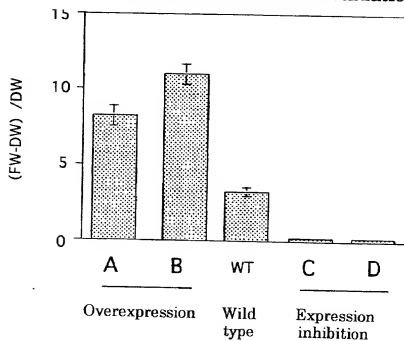


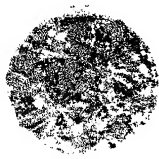
Figure 16

15/15

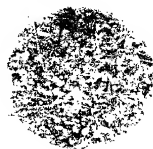
Overexpression

Wild type

Expression
inhibition



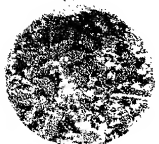
A



Col.



C



B



D